

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 2 of 28

CLAIMS: Please amend the claims according to the status designations in the following list, which contains all claims that were ever in the application, with the text of all active claims.

1-28 (CANCELED)

29. (NEW) A weight-controlled vehicle, comprising:
a rider support for carrying a rider,
at least three wheels mounted below said rider support for carrying said rider support and for
enabling said vehicle to roll when placed upon a riding surface,
said wheels being spaced to stably support said vehicle and normally prevent said vehicle from
tipping when placed upon said riding surface,
a motor and a power transmission for rotating at least one of said wheels for propelling said
vehicle along said riding surface,
a speed control coupling attaching said rider support to lower components of said vehicle and
arranged to enable said rider support to tilt relative to said lower components, such tilting
occurring in a generally forward or backward direction,
a speed control for enabling said rider to control the rolling speed of said vehicle in response to
said forward or backward tilting of said rider support,
a steering control for enabling said rider to tilt said rider support in a generally side-to-side
direction and in response to such tilting, steer said vehicle to the side in which said rider
support is tilted when said vehicle rolls upon said riding surface,
said rider support having an upward facing surface of a size and shape predetermined to enable
operation of said vehicle by a rider situated upon said rider support in a standing, sitting, or
kneeling riding position,
said upward facing surface being generally free of upwardly extending protrusions which would
otherwise substantially inhibit said rider from operating said vehicle in any of said riding
positions,
whereby said rider may control the rolling speed and steered direction of said vehicle by
appropriate tilting of said rider support when said rider is situated upon said rider support
in any of said riding positions.

30. (NEW) The vehicle of claim 29 wherein said speed control includes:

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 3 of 28

a rolling direction reverser for enabling said motor to propel said vehicle forward when said rider support is tilted into the forward range of its tilting motion and backward when said rider support is tilted into the rearward range of its tilting motion, whereby the direction that said vehicle rolls may be reversed in response to said forward or backward tilting of said rider support.

31. (NEW) The vehicle of claim 29 wherein said speed control coupling includes: an electrically responsive pressure sensing element to control said rolling speed of said vehicle in response to said forward and backward tilting of said rider support, whereby a material with piezoelectric qualities may control said rolling speed of said vehicle in response to substantially minor said forward or backward tilting of said rider support.

32. (NEW) The vehicle of claim 29, further including:
at least one handlebar for stabilizing said rider while said rider is situated on said rider support,
said handlebar being removable from said vehicle for enabling said rider to operate said vehicle with hands free and to operate and store said vehicle with reduced encumbrance from said handlebar.

33. (NEW) The vehicle of claim 29, further including:
at least one handlebar for stabilizing said rider while said rider is situated on said rider support, and
a clamping articulation for tucking said handlebar to a lower, less obtrusive position for enabling said rider to operate said vehicle with hands free and to operate and store said vehicle with reduced encumbrance from said handlebar.

34. (NEW) The vehicle of claim 29, further including:
a steerable truck attached below said rider support by a steering union for enabling said steerable truck to pivot along a steering axis,

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 4 of 28

at least two of said wheels being truck wheels rotatably attached to the left and right extremities of said steerable truck and spaced to normally prevent said vehicle from tipping in a side-to-side direction,

said steering axis generally falling within a left-right facing plane and also being substantially inclined to translate said side-to-side tilting of said rider support into appropriate left or right turning motion of said steerable truck for causing said truck wheels to steer said vehicle to the left or right in response to said side-to-side tilting of said rider support,

at least one said remaining wheel being a drive wheel rotationally coupled to said motor by said power transmission for propelling said vehicle along said riding surface, said drive wheel being located substantially in front or behind said truck wheels to prevent said vehicle from tipping in a front-to-back direction.

35. (NEW) The vehicle of claim 29 wherein at least one of said wheels is a drive wheel, and further including:

a steerable truck attached below said rider support by a steering union for enabling said steerable truck to turn to the left or right,

a steering linkage coupling said rider support to said steerable truck for turning said steerable truck to the left or right in response to said side-to-side tilting of said rider support,

said drive wheel being mounted to said steerable truck for steering said vehicle to the left or right when said steerable truck turns to the left or right in response to said side-to-side tilting of said rider support,

said motor also being mounted to said steerable truck and rotationally coupled to said drive wheel for propelling said vehicle along said riding surface.

36. (NEW) The vehicle of claim 29, further including:

a steering biasing spring constrained to deform when said rider support is tilted in said side-to-side direction, whereby said steering biasing spring's resistance to deformation biases said vehicle to roll in a generally straight line in the absence of said side-to-side tilting of said rider support, and

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 5 of 28

a throttle biasing spring constrained to deform when said rider support is tilted in said forward or backward direction, whereby said throttle biasing spring's resistance to deformation biases said vehicle to cease rolling in the absence of said forward or backward tilting of said rider support.

37. (New) A weight-controlled vehicle, comprising:

a rider support for carrying a rider,
at least three wheels mounted below said rider support for carrying said rider support and for enabling said vehicle to roll when placed upon a riding surface,
said wheels being spaced to stably support said vehicle and normally prevent said vehicle from tipping when placed upon said riding surface,
a motor and a power transmission for rotating at least one of said wheels and for propelling said vehicle along said riding surface,
a speed control coupling attaching said rider support to lower components of said vehicle and arranged to enable said rider support to tilt relative to said lower components, such tilting occurring in a generally forward or backward direction,
a speed control for enabling said rider to control the rolling speed of said vehicle in response to said forward or backward tilting of said rider support,
a steering control for enabling said rider to tilt said rider support in a generally side-to-side direction and in response to such tilting, steer said vehicle to the side in which said rider support is tilted when said vehicle rolls upon said riding surface,
said rider support having a seat upon which a rider may sit while operating said vehicle, whereby said rider may control the rolling speed and steered direction of said vehicle by appropriate tilting of said rider support when said rider is seated in said seat upon said rider support.

38. (New) The vehicle of claim 37 wherein said speed control includes:

a rolling direction reverser for enabling said motor to propel said vehicle forward when said rider support is tilted into the forward range of its tilting motion and backward when said rider support is tilted into the rearward range of its tilting motion,

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 6 of 28

whereby the direction that said vehicle rolls may be reversed in response to said forward or backward tilting of said rider support.

39. (New) The vehicle of claim 37, further including:

at least one handlebar for stabilizing said rider while said rider is situated on said rider support,

said handlebar being removable from said vehicle for enabling said rider to operate said vehicle with hands free and to operate and store said vehicle with reduced encumbrance from said handlebar.

40. (New) The vehicle of claim 37, further including:

at least one handlebar for stabilizing said rider while said rider is situated on said rider support, and

a clamping articulation for tucking said handlebar to a lower, less obtrusive position for enabling said rider to operate said vehicle with hands free and to operate and store said vehicle with reduced encumbrance from said handlebar.

41. (NEW) A weight-controlled vehicle, comprising:

rider support means for supporting the body of a rider,

at least three wheels enabling said vehicle to roll when placed upon a riding surface,

said wheels being spaced to stably support said vehicle and normally prevent said vehicle from tipping when placed upon said riding surface,

propulsion means for propelling said vehicle along said riding surface,

speed control attaching means for attaching said rider support means to lower components of said vehicle and arranged to enable said rider support means to tilt relative to said lower components, such tilting occurring in a generally forward or backward direction,

speed control means for enabling said rider to control the rolling speed of said vehicle in response to said forward or backward tilting of said rider support means,

steering control tilting means for enabling said rider to tilt said rider support means in a generally side-to-side direction and in response to such tilting, steer said vehicle to the side in which said rider support means is tilted when said vehicle rolls upon said riding surface,

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 7 of 28

said rider support means having an upward facing area of an appropriate size and shape to enable operation of said vehicle by a rider situated upon said rider support means in a standing, sitting, or kneeling riding position,

said upward facing area being generally free of upwardly extending protrusions which would otherwise substantially inhibit said rider from operating said vehicle in any of said riding positions,

whereby said rider may control the rolling speed and steered direction of said vehicle by appropriate tilting of said rider support means when said rider is situated upon said rider support means in any of said riding positions.

42. (NEW) The vehicle of claim 41 wherein said speed control means includes:
a rolling direction reversing means for enabling said propulsion means to propel said vehicle forward when said rider support means is tilted into the forward range of its tilting motion and backward when said rider support means is tilted into the rearward range of its tilting motion,
whereby the direction that said vehicle rolls may be reversed in response to said forward or backward tilting of said rider support means.

43. (NEW) The vehicle of claim 41 wherein said speed control attaching means includes:
an electrically responsive pressure sensing element to control said rolling speed of said vehicle in response to said forward and backward tilting of said rider support means, whereby a material with piezoelectric qualities may control said rolling speed of said vehicle in response to substantially minor said forward or backward tilting of said rider support means.

44. (NEW) The vehicle of claim 41, further including:
an upwardly extending support means with at least one hand grip area for said rider to hold on to and for facilitating the balance of said rider while said rider is situated on said rider support means,
said upwardly extending support means being removable from said vehicle for enabling said rider to optionally operate said vehicle with hands free and to operate and store

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 8 of 28

said vehicle with reduced encumbrance from said upwardly extending support means.

45. (NEW) The vehicle of claim 41, further including:

an upwardly extending support means with at least one hand grip area for said rider to hold on to and for facilitating the balance of said rider while said rider is situated on said rider support means,
a clamping articulation means for tucking said upwardly extending support means to a lower, less obtrusive position and for enabling said rider to operate said vehicle with hands free and to operate and store said vehicle with reduced encumbrance from said upwardly extending support means.

46. (NEW) The vehicle of claim 41, further including:

a steerable wheel mounting means attached below said rider support means by a steering union means for enabling said steerable wheel mounting means to pivot along a steering axis,
at least two of said wheels being truck wheels rotatably attached to the left and right extremities of said steerable wheel mounting means and spaced to normally prevent said vehicle from tipping in a side-to-side direction,
said steering axis generally falling within a left-right facing plane and also being substantially inclined to translate said side-to-side tilting of said rider support means into appropriate left or right turning motion of said steerable wheel mounting means for causing said truck wheels to steer said vehicle to the left or right in response to said side-to-side tilting of said rider support means,
at least one said remaining wheel being a drive wheel rotationally coupled to said propulsion means for propelling said vehicle along said riding surface,
said drive wheel being located substantially in front or behind said truck wheels to prevent said vehicle from tipping in a front-to-back direction.

47. (NEW) The vehicle of claim 41 wherein at least one of said wheels is a drive wheel and further including:

Amnt B, contd. Appn. SN 10/765437 Wade Spital GAU 3618 Page 9 of 28

a steerable wheel mounting means attached below said rider support means by a steering union means for enabling said steerable wheel mounting means to turn to the left or right,

a steering linking means coupling said rider support means to said steerable wheel mounting means for turning said steerable wheel mounting means to the left or right in response to said side-to-side tilting of said rider support means,

said drive wheel being mounted to said steerable wheel mounting means for steering said vehicle to the left or right when said steerable wheel mounting means turns to the left or right in response to said side-to-side tilting of said rider support means,

said propulsion means also being mounted to said steerable wheel mounting means and rotationally coupled to said drive wheel for propelling said vehicle along said riding surface.

48. (NEW) The vehicle of claim 41, further including:

steering biasing means for causing said vehicle to roll in a generally straight line in the absence of said side-to-side tilting of said rider support means, and
throttle biasing means for causing said vehicle to cease rolling in the absence of said forward or backward tilting of said rider support means.